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THE NATIONAL SHIPBUILDING RESEARCH PROGRAM

Project Planning and Implementation: Lessons Learned from the AQBMP Project

U.S. DEPARTMENT OF THE NAVY
CARDEROCK DIVISION,
NAVAL SURFACE WARFARE CENTER

in cooperation with

National Steel and Shipbuilding Company
San Diego, California

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Project Planning and Implementation: Lessons Learned from the AQBMP Project

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Addendum project under Task N1-94-4

TABLE OF CONTENTS

ACKNOWLEDGMENTS

EXECUTIVE SUMMARY

The goal of the AQBMP project was to develop low cost, low technology, common sense measures and practices to reduce air pollution emissions from shipyards. A report entitled 'Air Quality Best Management Practice Resource Document For Shipyards' was prepared, presented and distributed to the Facilities and Environmental Effects Panel (SP-1). This NSRP report is funded as an addendum to the Air Quality Best Management Practices (AQBMP) project (N1-94-4).

The AQBMP project was completed using an intensive project planning process using a variety of quality management tools. Nearly 20% of the project budget and time was allocated to planning the project. Quality management tools includes meeting facilitation and developing a project team. The team develops a process based on quality management tools and follows a mission through the planning and implementation phase.

The AQBMP project is considered by the Project Core Team to be successful because it met budget and schedule goals and the report met the SP-1 Panel's expectations. Key factors in the project's success include extensive planning, following the plan, meeting objectives and staying focused on the mission.

The purpose of this addendum report is to present the planning process and project management tools used to carry out the AQBMP project. This report identifies lessons learned from the planning process and project execution. The report is not intended to be a project management or total quality text book. The terms and descriptions in this report are used to help provide an understanding of the project planning and implementation process.

SECTION 1.0: PROJECT PLANNING OVERVIEW

1.1 THE IMPORTANCE OF PLANNING

Effective project planning is an important factor in successfully completing any project. The time and resources devoted to the planning process will vary from project to project can use between 5% and .25% of the project budget. With many projects, many engineers and managers are eager to get started and do not see the benefit in developing a project plan. It is important however to focus this enthusiasm into effectively planning a project.

The project planning stage is important because it establishes a project direction or mission in addition to identifying and clarifying the roles, responsibilities and expectations of each project team member. Through the planning process, each team member will understand and agree on the project direction and their roles in making the project successful. This understanding and agreement forms the basis of commitment to the project and defines the level of commitment from each team member up-front.

A project plan can be defined as a detailed strategy for completing an objective. Following through with the plan will result in a project that will meet expectations. The following is a summary of important considerations when planning a project:

- ✔ Developing a Mission and Visualizing the End Product

- ✔ Developing a Project Team

- ✔ Meeting Management

- ✔ Maintaining Project Focus

- ✔ Deliverable Management

- ✔ Team Communication

1.2 DEVELOPING A MISSION AND VISUALIZING THE END PRODUCT

Developing a project mission and visualizing the end product forms the basis of planning. For example, creating a clear picture of the desired result before the project begins will dictate the tasks required to achieve the mission. The mission will define what a successful project will look like when the project is complete. The mission of the AQBMP project was "to develop, by 11/13/95, accepted Air Quality Best Management Practices that will benefit the shipbuilding/repair industry" and a vision of the end product was a final report that consisted of sections including: introduction, background to air quality regulations, 10 to 20 AQBMP's (< 3 pages each), and an implementation plan.

1.3　DEVELOPING A PROJECT TEAM

The project team is usually assembled during the kick-off meetings. It is important to team members and people that will serve as resources. The team members should have good working relationships with one another to ensure that the project plan is carried out. Within the project core team, a Project Manager should be identified. The Project Manager should have the required technical expertise and the desire to hold the role of Project Manager. The Project Manager is responsible for meeting logistics, action item follow-up, keeping the team on schedule and a variety of other tasks as defined by the project core team.

A team approach is an effective method of completing small and large projects. The team members should have the appropriate technical, administrative and managerial skills that fit their role on the project. The team process requires commitment from team members, which will result in a better product and team unity. Many times it may seem as if a team approach is cumbersome because of the varying degree of commitment from each team member. However, for a team to be successful, there must be an appropriate level of commitment from each member. If members begin to lose commitment to the project it can become infectious and detrimental to the project's success. Therefore, a clear up-front outline of commitment will solidify the team approach.

1.4　MEETING MANAGEMENT

In implementing projects, the team can spend a significant amount of time in meetings. It is imperative that the meetings are efficient and effective. This means that all meetings need to accomplish what they are intended to accomplish within the desired amount of time. To help ensure that a team uses its meeting time wisely, the team should use certain meeting quality tools. Meeting tools include, but are not limited to, meeting facilitation, agendas, time-tables, flip-charts, action items and minutes. These tools and practices are included the following table:

Meeting Management Tools and Definitions	
Meeting Agendas	Agendas should be developed at the end of each meeting and distributed to all team members prior to the next meeting. The Facilitator should support the effort of staying focused. However, it is also the responsibility of each team member to help keep the team "on track" by following the written agenda.
Meeting Minutes	After each meeting, minutes should developed (usually the responsibility of the team leader) to serve as a history of accomplishments. Action items will serve as the "daily" tool to help ensure that the project will meet its goals and objectives. They are also critical in determining what needs to be completed, and what has been completed.

Ground rules	The "kick-off"meeting (discussed in Section 2) will establish the meeting Ground rules. These Ground rules identify the group norms and establish consistent expectations. Some of the items that may be included in this list are meeting times, length of meetings, how the team wants to interact with each other (respect, courtesy, open minded, etc.), and meeting logistics.
Parking Lot	The parking lot is a flip-chart that may be used to record items of importance that come up during the meeting, but are not on the agenda. This important information should be included in a future meeting agenda and addressed at that time. The function of a parking lot is to keep the meeting from getting side tracked.
Facilitator	A Facilitator has the primary function of keeping the team focused and productive. The Facilitator does not get involved with the content of what the team is trying to accomplish. Instead, he/she should stay focused on the meeting process and remind the team of the agenda.
Action Items	Before proceeding further, objectives and specific tasks to complete the objectives should be defined. Team members can then be identified (usually volunteer) to complete each task by a specific due date. Sometimes more than one team member will be responsible for a given task and on critical items it may be necessary for the entire team to work together.
Time Lines	Time line charts are excellent tools for graphically displaying the status of the project. A time line should be provided at the first meeting and should be discussed in order to address upcoming issues and tasks that may have been over-looked.
Deliverable	The deliverable review process consists of providing project updates to the team Sponsor. The Sponsor can then provide feedback to each individual or the Project Manager. This will usually take place at the completion of an objective and will ensure that there are no "surprises". This communication also provides the team with support and direction.

The key is to plan the meeting, follow the agenda and stay within the given time frame for the meeting. A Facilitator can be used to help the meeting stay in focus and on schedule. It is the responsibility of each team member to help keep meetings "on track" by following the agenda and staying focused on meeting objectives. After each meeting "minutes." which provide a history of accomplishments, questions and identify the next meeting objectives, should be developed and distributed to team members. Action items can also be identified in "minutes" and used as a tool to help team members follow through on items addressed in the meeting.

1.5   MAINTAINING PROJECT FOCUS
All team members must understand that a project is an organization of non-routine tasks directed at completing a specific goal or set of goals. It is also important to understand that projects exist for a

definite amount of time, with definite deliverables, and a definite budget. The more focused the project is, the sooner the objectives will be met, and the sooner the project will end. This concept goes back to "beginning with an end in mind". Each project core team member must understand this concept and how their contributions will lead to the desired results.

1.6 DELIVERABLE MANAGEMENT

Deliverables that accomplish the projects objectives and present findings of associated tasks and sub-tasks are an excellent method of tracking a project's progress and direction. All team members are responsible for deliverables that are reviewed by other team members. These deliverables should have specific due dates. Tracking the deliverables is usually the responsibility of the Project Manager and the team members. In many cases, if the project is managed using deliverables, progress meetings can be used to address deliverable quality, project schedule, project direction and associated budgets. All associated deliverables should be specific, measurable, achievable, relevant and have a realistic time-line for completion (i.e., realistic schedule).

1.7 TEAM COMMUNICATION

At times during a project, deliverables may be delayed for one reason or another. Workloads may shift to other projects and project team members may not be able to meet commitments. Each team member and the Project Manager have the responsibility to continuously communicate with one another regarding the status of the project and circumstances that may impede successful completion of the project. Poor communication leads to unrealized expectations. The sooner potential problems are discovered, the sooner they can be addressed.

SECTION 2.0: PROJECT KICK-OFF MEETING AND TEAM ORGANIZATION

2.1 KICK-OFF MEETING

Many projects start with a series of "kick-off meetings" where potential team members gather to discuss the project. The main objective of a kick-off meeting is to develop the project team and outline the general direction of the project. Project kick-off meetings should be focused on the project and any potential project team members should be involved.

An effective kick-off meeting will set the stage for successful project completion. Flexibility should be stressed in order to maintain quality discussions and problem resolution. An example of a kick-off meeting agenda can include the following topics:

Sample Kick-off Meeting Agenda:

⇒ Team member introductions and applicable experiences - 15 min

⇒ Effective meeting management ground-rules - 30 min

⇒ Determine team commitment. Is the right team assembled? (time commitment, abilities and desire to participate) - 30 min

⇒ Project budget, completion dates, other constraints, etc - 15 min

⇒ Brainstorming, draft project mission, goals and objectives - 45 min

2.2 MEETING ORGANIZATION AND PREPAREDNESS

In order for kick-off meetings to be successful the meetings must be organized and should stay focused on the project. An organized kick-off meeting will have a greater chance of success if the expectations are achievable. An organized meeting will also help maintain the interests of participants and ensure time is used efficiently. An organized meeting will have the following elements:

⇒ Project team members, project Sponsor and a Facilitator

⇒ Meeting objectives

⇒ Written agenda with time allotments

⇒ Support materials including: project abstract, project proposal, budget constraint information and required project completion dates

Participant preparedness is another important aspect of a successful project kick-off meeting. Each

member should have a copy of the meeting agenda, project abstract and project proposal. Team members should be ready to answer the following questions:

⇨   What are the goals of the project?

⇨   What steps need to be taken to achieve the goals?

⇨   How can I contribute to the success of this project?

⇨   What time commitments will fit into my current work-load?

Each potential team member should read through the project proposal and be prepared to answer the aforementioned questions. There should be little time spent in providing background information.

2.3   MEETING FACILITATION

As previously mentioned a kick-off meeting is important during the planning stages. During the kick-off meetings, it is a good idea to enlist a Facilitator to help manage the direction of the meeting, meeting focus and time frame. A Facilitator can help keep kick-off meetings focused and on schedule. A Facilitator can also introduce the meeting process that the team will use to focus energy and efforts. The Facilitator can also be a valuable resource for managing team dynamics and keeping the team focused on their goals.

2.4   TEAM ORGANIZATION

A quality approach involves organizing a project team to develop a plan that will successfully complete the project. Projects need team members who have the required talent and want to work on the project. In many cases, key team members will need to loosen up their current work-load to join the project. The Project Sponsor will generally make the final determination as to who will be on the core team. It will become evident who wants to work on the project during the kick-off meetings. The criteria to finalize the core team includes expertise, desire and availability. The kick-off meetings will provide a good idea about what will be needed to complete the project. The following table illustrate a team approach in project management:

Team Member	Role and Responsibilities
Sponsor	The Sponsor has an active role in providing the direction for the team, as well as determining and providing appropriate resources. The Team Sponsor's leadership and support also provides the team with technical assistance and guidance. The Sponsor should attend key team meetings and receive the meeting minutes regularly. The Sponsor's role is to provide the needed resources and assistance in overcoming road blocks encountered throughout the project.

Project Manager	The team should elect or otherwise appoint a team leader or Project Manager. The Project Manager should have the required technical expertise and the desire to hold the role of Project Manager. The Project Manger is responsible for meeting logistics, action item follow-up, communicating with both the Sponsor and Facilitator on a regular basis and keeping the team on "track". Effective Project Managers learn from initial errors, adjust, and continue with minimal disruption. Ineffective Project Managers are troubled with unexpected events. Consequently, project goals and objectives become lost in the process.
Core Member	The working team members carry out the project plan. They have the primary responsibility for planning the project and following through with the plan. Success will fall on the shoulders of the project core team.
Facilitator	The meeting Facilitator's role is to ensure that team members remain focused throughout the project. Facilitators also help with managing team dynamics and keeping the team focused on their goals. The meeting Facilitator takes on a more active role at the beginning of the project, and a more supportive role once the project goals and planning are complete. As a result, subsequent project meetings are facilitated by team members. A quality consultant is an excellent source for meeting facilitation.
Technical Support	In many cases, the project core team may not have all of the expertise needed for the project. Therefore, the team may call upon people to provide technical direction. For example, the project core team may need technical direction from production engineers, facilities engineers, engineering specialist, and others as directed by the project and the project team.
Administrative Support	Administrative support is frequently overlooked but a very important aspect of any project. Administrative Coordinators often process and maintain meeting minutes, agendas, and produce time lines. Frequently, administrative support helps coordinate meeting times, places, and often served as a point of contact for all project team members.

Note: The Sponsor and Facilitator maybe members of the Project Team or can be resources.

SECTION 3.0: PLANNING FOR SUCCESS

3.1 DEFINING PROJECT SUCCESS

In order for project members to determine if a project is successful, "success" must be defined specifically by the project team. During the planning process, time lines, schedules, goals and deliverables all come together to define "success." The planning process outlines how a successful project achieves the desired goals within a prescribed schedule and budget. Simply stated, if the project progresses as the plan dictates, the project will be successful. Planning is one of the most important aspects of achieving "success". Once the kick-off meetings are complete and the right team is assembled, it is time to "Plan for Success".

3.2 THE PROJECT PLAN

The project plan is an important tool that should be developed for projects lasting between two weeks and two years. Many project team members do not like plans because they feel too obligated and confined. Obligation is good because team members must take an active role and be responsible to perform their respective planned commitments. On the other hand, confinement is not good.

However, project plans should remain flexible through team communication and management. In other words, the project plan is not written in stone. It is a tool used to define success early in the project. The project team will have the ability to modify the plan as necessary to perform successfully and meet all goals and objectives.

When planning a project, the project team needs to establish the elements of success by using quality management tools. The topics that need to be brain stormed during planning meetings include:

⇒ **A Project Mission Statement (A guiding statement)**

⇒ **A Project Vision (What will the end product look like)**

⇒ **Project Goals and Objectives (Achieving the Mission and Vision)**

⇒ **Project Break-Down Into Tasks and Sub-Tasks (Project work breakdown)**

⇒ **Project Time-Lines and Resource Allocation (Schedule and team commitment)**

Once a plan is established, it is time to define project success. This can start out by visualizing the projects desired results and developing the Project Mission and Objectives.

3.3 PROJECT MISSION AND VISION

The intent of the project mission is to create a statement of purpose that reflects all of the team member's ideas and what they desire to accomplish by participating in the project. Through brainstorming, the team shares and combines ideas to develop an overall mission for the project. This brainstorming process brings out many ideas and subjects that will be addressed in the project. The process of developing a mission is as important as the statement itself. For example, the Air Quality Best Management Practices Team Mission stated: "Our mission is to develop, by 11/13/95, accepted Air Quality Best Management Practices that will benefit the shipbuilding/repair industry." Many goals and objectives were discussed when this statement was developed. Note that the date of completion, shipyard benefit, and acceptability, were so significant to the team, they included it in their mission. Missions will vary greatly from project to project and from team to team. Some mission statements will be very long and detailed and others will be short and general. The project mission serves as a guide to help focus the project and may even change as the project progresses.

3.4 VISUALIZING THE END PRODUCT

Visualizing the end product associated with the project forms the basis of planning the project. For example, creating a clear picture of the desired end results before the project begins will dictate the tasks required to achieve the "vision." The vision will define what a successful project will look like when the project is complete. The project team should clearly communicate and document their vision of the end product. The vision of the AQBMP project was a final report that consisted of several sections including: introduction, background to air quality regulations, 10 to 20 AQBMP's (< 3 pages each), and an implementation plan. The vision, combined with the mission help in developing goals and objectives.

3.5 DEVELOP GOALS AND OBJECTIVES

Once the team establishes a mission and a vision of the end product, supporting goals and objectives can be established. In other words, what actions are necessary to deliver the expected out-come. To identify goals and objectives, the team need to identify their customers expectations and needs. Below is an example of the goals and objectives that were identified in the SP-1 project abstract and project proposal:

Goals/Objectives #	Description
1	Shipyard Survey Form, Method, Results Analysis, and Presentations
2	10 to 20 Written Best Management Practices (each 1-3 pages)
3	Presentation to SP-1 and Progress Reports
4	Develop a Generic Shipyard AQBMP Implementation Plan

5	Other Final Report Sections: Executive Summery Project Approach and Acknowledgments AQBMP Background and Document Overview Shipyard Compliance Benefits of Implementing AQBMPs Shipyard Emissions: Environmental and Health Concerns

This table illustrates how the project has now gone from a mission and vision to goals and objectives designed to achieve success. Once the goals and objectives are defined, the project can be broken down further.

3.6   PROJECT BREAK-DOWN

Project objectives, for the purpose of this document, can be referred to as tasks and sub-tasks. The project planning process that the team utilizes allows them to understand the overall approach and break the project into "digestible chunks". Team brainstorming sessions about the process of task breakdown will need to be completed in order to achieve the desired goals and objectives. The task identification will result in work required for team members to perform in order to complete the project. Goals/Objectives 1.0 from the above mentioned AQBMP Project Breakdown table and the associated sub-task breakdown is presented below as an example:

Goal/Objective 1.0
Shipyard Survey Form, Method, Results Analysis, and Presentations
Task 1.1 Determine Purpose of Survey - Determine the information needed - Visualize and define the end product - Outline high response rate factors
Task 1.2 Survey Form Development - Define a successful form (i.e. easy to use, comprehensive, desired results, etc.) - Design the survey form and questions (design to ease results analysis) - Develop the survey form - Team review and completion
Task 1.3 Survey Participants and How the Survey will be Distributed - Specific SP-1 Panel members listing with phone and fax numbers - Initial Phone calls followed by faxed survey forms - Follow-up phone calls to ensure high response rate (> 50% desired)
Task 1.4 Results Analysis and Report and Presentation - Input data from the forms - Analyze the data to draw conclusions - Prepare short (3 page) report of findings

3.7 DELIVERABLE DEFINITIONS AND TIME LINES

Once the project is broken down into tasks, deliverables should be identified. This will signify satisfactory completion of each task. The deliverable can be a presentation, summary report, final report section, result graphs, information or other specifically measurable criteria. The table below is a listing of the required deliverables for the previously discussed goal/objective 1.0:

Task # and Description		Deliverable Definition
Task 1.1	Determine Purpose of Survey	½ page write up of the goals and objectives of the survey
Task 1.2	Survey Form Development	Established format criteria (½ page) Reviewed an acceptable survey form and cover letter
Task 1.3	Survey Participants and How the Survey will be Distributed	List of Survey participants (phone, fax, address, etc.) Method for distribution and collection
Task 1.4	Results Analysis and Report and Presentation	3 to 4 page write up of conclusions including charts and figures and presentation to SP-1 Panel

A basic breakdown of tasks for each goal/objective should be discussed in a team meeting to determine who will perform or lead the tasks, their associated due dates and any time commitments (budgets) related with the tasks. This process will result in a set of time-lines and team member responsibilities.

The tendency at this time is to assign one individual to an entire deliverable (survey development and distribution) which may undermine the team approach process. The team approach process includes continuous involvement from all team members which will result in a better product, team unity, and overall success. It is appropriate to give the lead on a specific deliverable to one team member, but it is important that a method is defined that will allow for team involvement and input. The table below is an illustration of the time line for the AQBMP project goal/objective 1.0:

Chart Task # and Description	Start Date	End Date	Est. Time (hours)	Team Member
Task 1.1 Determine Purpose of Survey	1/23	2/1	10	all
Task 1.2 Survey Form Development	2/1	2/10	60	1, 2, 5
Task 1.3 Survey Participants and How the Survey will be Distributed	2/10	2/15	25	3, 4
Task 1.4 Results Analysis and Report and Presentation	4/1	4/20	30	6

SECTION 4.0: PROJECT IMPLEMENTATION AND MANAGEMENT

4.1 IMPLEMENTATION OF THE PROJECT

Implementation is carrying out a plan of action, using the appropriate tools, and monitoring progress to a desired end. Once a project is planned, efficient and effective implementation of the project will result in success. The two elements to implementation are monitoring and control. A Project Manager is the key individual in monitoring and controlling the project. The Project Manager, along with team members, must monitor the project and keep the communication channels open.

Monitoring includes tracking the progress of the project to ensure that the project plan is being followed. Project control is the process of comparing planned performance with the actual progress and taking corrective actions where deficiencies exist or changes must occur. Every step of the project must be documented and controlled with tasks and associated deliverables. Below is an outline of project implementation, monitoring and control factors for managing projects :

Project Implementation, Monitoring, and Control Factors
Project Implementation
Team agrees about the plan
Time is allotted to the team to work on the project
Other required resources are made available
Team members understand their roles and responsibilities
Time-lines are realistic
Agreement on weekly project progress meetings
Project Monitoring
Following a set schedule of deliverables
Reviewing the deliverables with a specific method and quality expectation
Weekly team meetings to discuss deliverables and time-lines
Track and report progress to Project Sponsor
Project Control
Make resource and schedule changes as necessary
Project Sponsor to be notified of significant changes in the schedule or work-scope
Project feedback for management support
Evaluate project deliverables vs. planned deliverables

4.2 PROJECT MANAGEMENT

The Project Manager or team leader should have the required technical expertise and the desire to hold the role of Project Manager. The Project Manager must understand that the focus are on schedule adherence, quality deliverables, and budget maintenance. The Project Manager is responsible for all progress meeting logistics, action item follow-up, communicating with both the sponsor and Facilitator on a regular basis and keeping the team on-track.

It is important with large projects that the Project Manager is not assigned many project tasks. This is because the position of Project Manager requires a significant commitment of time to be performed effectively.

Successful Project Managers focus on their objectives, learn from initial errors, adjust, and continue with minimal disruption. The following table illustrates some "effectiveness factors" learned with respect to project management and implementation:

"Effectiveness Factors"	
Task Management	Plan weekly work scopes for team members (i.e., weekly review and progress discussions).
Time Management	Set aside regular work time to devote to the project (i.e. Monday and Wednesday mornings). Realize that everything takes longer than you estimate.
Meeting Management	Weekly meetings managed for effectiveness.
Intermediate Goals	Deliverables (5 to 10 major milestone deliverables).
Progress Monitoring	Deliverables on time and of good quality.
Project Control	Adjustments to the plan to keep the project on-track.
Long-Range Goals	Bringing the project together (1-3 Major Deliverables).
Values	Staying within the guidelines of the prescribed Mission Statement.

4.3 A TEAM APPROACH TO PROJECT MANAGEMENT

A critical element of project management that will contribute to the project's success is the development of a "team" environment. A team environment entails:

⇒ Decision making by consensus to build buy-in by members

⇒ Weekly team meetings to keep on-track

> ⇒ Deliverable review

> ⇒ Everyone is responsible for project management

A) DECISION MAKING BY CONSENSUS

An important aspect of establishing a team environment is the decision making process. By using consensus decision making, team members are required to listen to each other and to keep an open mind. The benefits of using consensus decision making include, sharing the knowledge and experience of all team members, developing team support for the decision, and ultimately making better quality decisions. Since this method of decision making requires group consensus, there are times when a project team may find it necessary to set the decision "aside" and address it at another time or from another perspective.

B) KEEP ON-TRACK WITH REGULARLY SCHEDULED TEAM MEETINGS

At the initial stages of the project there will be a lot of information gathering, transfer, and questions. It is a good idea for the team to meet on a regular basis. These meetings will ensure that there is continued communication and that the project remains a priority with team members. They are designed to update members on their progress, submit deliverables, and provide for team input. It is a good idea to schedule these meetings every week on the same day, time and place. In addition to these "formal meetings", team members can also form smaller "ad-hoc" or work team meetings, designed to accomplish specific tasks that do not require the attendance of all team members.

C) DELIVERABLE REVIEW

The project may have a variety of deliverables that will be reviewed by the project team. The deliverables will range from research data, to the presentation, to the final report sections. The team should review the deliverables to ensure that the task is completed to the quality standards set by the team. The team should have a review process to make sure that all documentation is written and presented as effectively as possible. The review process should include team members, as well as individuals who are not involved with the project. All deliverable should be reviewed for content, clarity, and grammar.

D) EVERYONE IS RESPONSIBLE FOR PROJECT MANAGEMENT

It is imperative that the team understand that "everyone is responsible for project management" early on in the project. It is generally understood that Project Managers are ultimately responsible for ensuring that projects run smooth, objectives are met, and the mission is met. However, using a team approach requires that the entire project team to be responsible and take pride in the project's success. Therefore, it is the responsibility of all team members to make sure they are ready to help one another when possible. The concept of helping out team members develop camaraderie and a united effort in completing the project.

SECTION 5.0: SUMMARY

There are many reasons that the AQBMP Project Team successfully met their mission, goals and objectives in a cost effective and timely manner. Hard work on the part of the team members was an essential ingredient, which must be a part of all successful projects. Albeit, hard work can be wasted energy if the project is not planned correctly. The project plan is essential for focusing efforts.

Another key element, is the importance of developing a team approach. The team approach creates a shared responsibility and commitment to the successful completion of the project. Without a team approach, many projects get behind, start to take different direction, budgets are overrun, and fail to meet objectives. The failure of a project can have many causes, but most will lie in poor project planning, poor meeting management, and poor project management.

The table in attachment #1 provides a list of questions to ask about a projects ultimate success. If you address these questions, your project can be a success. Attachment #2 provides a short list of available resources on project planning and management used by the AQBMP Project Team.

Attachment #1: Project Checklist

Questions That Will Help Determine Success
Team Approach
Does the project Sponsor have upper management support?
Are project team members available for this project?
Does the team possess the required technical expertise for the project?
Do the project team members have the energy, time, and desire to work on the project?
Are all consultants and/or technical resources on-board?
Will the required project resources be made available for the team?
Does each team member have money budgeted and time allotted at the start the project?
Does the team communicate well with one another and the Project Manager?
Is the team committed to successful completion of the project?
Planning Process
Does the team agree on a mission statement and project goals/objectives?
Has the team agreed on a vision of what a successful project will look like?
Are tasks and associated deliverables clearly defined?
Is there a schedule of achievable due dates assigned to deliverables?
Does the team members know their specific roles, expectations and the required time commitments?
Is the team ready for continuous project communication and meetings?
Meeting Management
Are all project meetings well managed using clear agendas?
Are team members prepared to come to the meetings?
Are "action items" used to accomplish issues addressed in meetings?
Are weekly project update meetings effective?
Project Management
Is the project being tracked by deliverable completion?
Is the entire team taking responsibility for the projects success?
Are there periodic team meetings to submit and discuss deliverables?
Is the budget, deliverables and due dates being tracked?
Is there continuous communication between team members and the Project Manager?
Are adjustments being made to the schedule when goals, objectives and roles change?
Is the Project Manager following through on progress management?
Post Project
Did the project proceed as planned?
Were there minor adjustments made to the schedule and tasks?
Did the team complete all of the goals of the project?
What could have been done differently?
How did the process work?

ATTACHMENT #2: RESOURCES

The Core Team believes that the foundation for the project's success was using quality processes, planning tools and meeting facilitation. The following is a list of resources available to support a team develop a project approach and plan:

Essentials of Project Management. Gray, Clifford F., Princeton, New Jersey: P.B.I Petrocelli Books, Inc., 1981.

The Human Side of Project Management. House, Ruth Sizemore. Reading, Massachusetts: Addison-Wesley Publishing, 1988.

How to Manage a Small Project. NISC, U.S. Office of Personnel Management.

Lakewood Publications (Resource Catalog) - (800) 328-4329

The Memory Jogger Plus+ - Goal/QPC- (508) 685-3900

Program Planning and Analysis. Peterson, C. J., NISC, Office of Personnel Management.

Standard Handbook of Environmental Engineering. Corbitt, R. A., McGraw Hill, 1989.

The Team Handbook: Joiner and Associates - (800) 669-8326; This book provides practical and easy-to-apply and techniques for enabling project teams to their work effectively.

Time Management: An Instruction to the Franklin System. Winwood, Richard. Salt Lake City, Utah: Franklin Quest Co., 1990.

The Seven Habits of Highly Effective People. Covey, Steven R., New York: Fireside, 1989.

Winning at Project Management: What Works, What Fails, and Why., Gilbreath, Robert D., New York: John Wiley and Sons, 1986.

Meeting Facilitation Resources
 American Quality Foundation (AQF) - (212) 724-3170
 American Society for Training and Development (ASTD) - (703) 683-8100
 Quality Training Systems - (909) 672-7404
 Richard Rogers - (800) 233-3302
 Technology Exchange Center (TEC) - (714) 648-0266

For more information about the
National Shipbuilding Research Program
please visit:

http://www.nsrp.org/

or

http://www.USAShipbuilding.com/